

WHAT IS CLAIMED IS:

1. A composition for forming an ink acceptable layer of a recording medium for inkjet printers, said composition comprising:

an inorganic filler;

a hydrophilic binder; and

a core-shell structured cationic latex and a polyamide-epichlorohydrin resin.

2. The composition of claim 1, which comprises, based on 100 weight parts of a total solid content of said composition:

50 to 90 parts by weight of the inorganic filler;

5 to 30 parts by weight of the hydrophilic binder;

0.5 to 20 parts by weight of the core-shell structured cationic latex; and

0.5 to 20 parts by weight of the polyamide-epichlorohydrin resin.

3. The composition of claim 1, which further comprises an additive.

4. The composition of claim 3, which comprises, based on 100 weight parts of a total solid content of said composition:

50 to 90 parts by weight of the inorganic filler;

5 to 30 parts by weight of the hydrophilic binder;

0.5 to 20 parts by weight of the core-shell structured cationic latex;

0.5 to 20 parts by weight of the polyamide-epichlorohydrin resin; and

0.015 to 10 parts by weight of the additive.

5. The composition of claim 1, wherein the core-shell structured cationic latex is represented by the following formula (I):



in which

A is a polymer unit produced by copolymerization of a copolymerizable monomer containing a tertiary amino group or a quaternary ammonium group;

B is a polymer unit produced by copolymerization of a copolymerizable monomer having at least two groups having an unsaturated double bond;

C is a polymer unit produced by copolymerization of a copolymerizable monomer having a double bond which has not been used for A and B;

l is 10 to 99 mole%;

m is 0 to 10 mole%; and

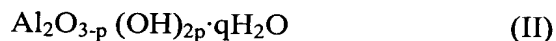
n is 0 to 90 mole%, wherein $l+m+n=100$ mole%.

6. The composition of claim 1, wherein the core-shell structured cationic latex is an acrylate based cationic latex.

7. The composition of claim 1, wherein the polyamide-epichlorohydrin resin is a mixture or compound having a polyamide group and epichlorohydrin group.

8. The composition of claim 1, wherein the inorganic filler includes at least one inorganic substance selected from the group consisting of calcium carbonate, kaolin, talc, calcium sulfate, barium sulfate, titanium oxide, zinc oxide, zinc carbonate, aluminum silicate, silicic acid, sodium silicate, magnesium silicate, calcium silicate, silica and alumina.

9. The composition of claim 1, wherein the inorganic filler is an alumina represented by the following formula (II):



in which

p is a natural number of 0 to 3; and

q is a rational number of 0 to 10.

10. The composition of claim 1, wherein the hydrophilic binder is a polyvinyl alcohol.

11. A recording medium for inkjet printers comprising a substrate and an ink acceptable layer, in which the ink acceptable layer comprises:

an inorganic filler;

a hydrophilic binder; and

a core-shell structured cationic latex and a polyamide-epichlorohydrin resin.

12. The recording medium of claim 11, wherein the substrate is selected from the group consisting of transparent or translucent polyester based films, polycarbonate based films, cellulose-acetate based films and polyethylene based films; polyethylene papers and polypropylene papers with at least one surface coated; one-side coated art papers and two-sides coated art papers; cast coated papers; synthetic papers; and photo papers.

13. The recording medium of claim 11, wherein the substrate has a thickness of 70 μ m to 350 μ m.

14. The recording medium of claim 11, wherein the ink acceptable layer comprises, based on 100 parts by weight of a total solid content of the ink acceptable layer:

50 to 90 parts by weight of the inorganic filler;

5 to 30 parts by weight of the hydrophilic binder;

0.5 to 20 parts by weight of the core-shell structured cationic latex; and

0.5 to 20 parts by weight of the polyamide-epichlorohydrin resin.

15. The recording medium of claim 11, wherein the ink acceptable layer further comprises an additive.

16. The recording medium of claim 15, wherein the ink acceptable layer comprises, based on 100 parts by weight of a total solid content of the ink acceptable layer:

50 to 90 parts by weight of the inorganic filler;

5 to 30 parts by weight of the hydrophilic binder;

0.5 to 20 parts by weight of the core-shell structured cationic latex;

0.5 to 20 parts by weight of the polyamide-epichlorohydrin resin; and

0.015 to 10 parts by weight of the additive.

17. The recording medium of claim 11, wherein the core-shell structured cationic latex is represented by the following formula (I):



in which

A is a polymer unit produced by copolymerization of a copolymerizable monomer containing a tertiary amino group or a quaternary ammonium group;

B is a polymer unit produced by copolymerization of a copolymerizable monomer having at least two groups having an unsaturated double bond;

C is a polymer unit produced by copolymerization of a copolymerizable monomer having a double bond which has not been used for A and B;

l is 10 to 99 mole%;

m is 0 to 10 mole%; and

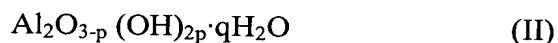
n is 0 to 90 mole%, wherein $l+m+n=100$ mole%.

18. The recording medium of claim 11, wherein the core-shell structured cationic latex is an acrylate based cationic latex.

19. The recording medium of claim 11, wherein the polyamide-epichlorohydrin resin is a mixture or compound having a polyamide group and epichlorohydrin group.

20. The recording medium of claim 11, wherein the inorganic filler includes at least one inorganic substance selected from the group consisting of calcium carbonate, kaolin, talc, calcium sulfate, barium sulfate, titanium oxide, zinc oxide, zinc carbonate, aluminum silicate, silicic acid, sodium silicate, magnesium silicate, calcium silicate, silica and alumina.

21. The recording medium of claim 11, wherein the inorganic filler is an alumina represented by the following formula (II):



in which

p is a natural number of 0 to 3; and

q is a rational number of 0 to 10.

22. The recording medium of claim 11, wherein the hydrophilic binder is a polyvinyl alcohol.

23. The recording medium of claim 11, wherein the ink acceptable layer has a thickness of 8μm to 80μm.

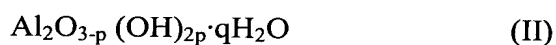
24. The recording medium of claim 11, which further comprises an under coating layer disposed between the substrate and the ink acceptable layer.

25. The recording medium of claim 11, which further comprises a protective layer disposed on the ink acceptable layer.

26. The recording medium of claim 11, which further comprises a back coating layer disposed on the substrate.

27. The composition of claim 5, wherein the core-shell structured cationic latex is an acrylate based cationic latex.

28. The composition of claim 8, wherein the inorganic filler is an alumina represented by the following formula (II):



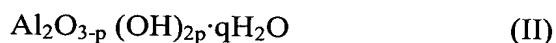
in which

p is a natural number of 0 to 3; and

q is a rational number of 0 to 10.

29. The recording medium of claim 17, wherein the core-shell structured cationic latex is an acrylate based cationic latex.

30. The recording medium of claim 20, wherein the inorganic filler is an alumina represented by the following formula (II):



in which

p is a natural number of 0 to 3; and

q is a rational number of 0 to 10.